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NOTICE OF ALLOWANCE AND FEE(S) DUE

26652

7590

05/12/2008

AT&T CORP.
ROOM 2A207
ONE AT&T WAY
BEDMINSTER, NJ 07921

EXAMINER

KOVACEK, DAVID M

ART UNIT

PAPER NUMBER

2626

DATE MAILED: 05/12/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,495	03/01/2004	Giuseppe Di Fabrizio	2002-0355A	9524

TITLE OF INVENTION: SYSTEM FOR DEVELOPING A DIALOG MANAGER USING MODULAR SPOKEN-DIALOG COMPONENTS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$0	\$0	\$1440	08/12/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE** OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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26652 7590 05/12/2008
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(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10790,495 03/01/2004 Giuseppe Di Fabrizio 2002-0355A 9524

TITLE OF INVENTION: SYSTEM FOR DEVELOPING A DIALOG MANAGER USING MODULAR SPOKEN-DIALOG COMPONENTS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$0	\$0	\$1440	08/12/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
KOVACEK, DAVID M	2626	704-275000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a **Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
 (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____
 Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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EXAMINER

KOVACEK, DAVID M

ART UNIT

PAPER NUMBER

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DATE MAILED: 05/12/2008

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 797 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 797 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.

10/790,495

Examiner

DAVID KOVACEK

Applicant(s)

DI FABBRI ET AL.

Art Unit

2626

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Remarks, 04/28/2008.
2. ☒ The allowed claim(s) is/are 1-14 and 17-36.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 03/12/2008
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

1. This Office Action is in response to the amendment by the applicant, dated 04/28/2008, in which the applicant amends **claims 1, 17, 22, and 26**, cancels **claims 15-16**, and provides rationale for allowability over the prior art.

Response to Amendment

2. The applicant's amendments to the claims have been considered and accepted. It is noted by the examiner that this amendment puts the claims in condition for allowance for the reasons provided in the appropriate sections below.

Allowable Subject Matter

3. **Claims 1-14, and 17-36** are allowed. The following is an examiner's statement of reasons for allowance:

Regarding **claim 1**, the prior art most similar the limitations as presented would be Chapados (US Patent 6,356,869), cited in a previous Office Action, in view of Abella (US PG-Pub 2003/0105634), cited in a previous Office Action.

Chapados discloses a method for generating a dialog manager for a spoken dialog service, comprising:

- selecting a top level flow controller [discourse manager] that is a finite state model (Col. 2, lines 20-24);

- selecting available reusable subdialogs below the top level flow controller, the reusable subdialogs being isolated from application dependencies (Col. 3, line 19-22; Col. 8, lines 35-39, lines 42-44; Col. 9, lines 15-21);
- testing and deploying the spoken dialog service using the selected top level flow controller, selected reusable subdialogs and developed subdialogs, wherein the top level flow controller, reusable subdialogs and developed subdialogs interact independent of their decision model (Col. 3, lines 19-22).

It is noted by the examiner that "deploying the spoken dialog service" is an inherent part of the generation process of a spoken dialog service as applied above in the Response to the Amendments.

Furthermore, the examiner contends that it would be have been obvious for one of ordinary skill in the art at the time the invention was made to test any spoken dialog service before use as part of the generation process. This is because for the creation of any novel invention, testing is a known practice in ensuring repeatable and successful results in utilization.

However, though Chapados does imply "developing a subdialog for each application part not having an available subdialog" (Col. 3,

lines 24-29) in disclosing the dynamic creation of transitions, this does not necessarily require that the states connected by the transitions are created as necessary.

Abella does disclose the development of subdialogs [dialog motivators] for each part of a dialog manager not having them (Page 3, paragraph 0034). It is noted by the examiner that the broadest reasonable interpretation of "subdialog" would include any process, device, or mechanism that is part of a composite of a dialog system, such as the dialog motivators disclosed by Abella.

The two references are combinable because each is directed towards a speech dialog manager implemented with a modified finite state model. Abella provides motivation in disclosing the usefulness of a hierarchy of subdialogs [dialog motivators] in the decision model of a dialog manager in order to improve efficiency of the dialog manager during interaction with the user (Page 3, paragraph 0039-0040).

However, Chapados in view of Abella discloses all limitations of **claim 1** as applied above, but does not further disclose that the top level flow controller is also a recursive transition network (RTN) flow controller.

The most appropriately applied prior art regarding the use of RTN networks in dialog management systems that was found during examination was Brown (US Patent 5,699,456), cited in a previous Office Action, which describes the use of RTN networks for the purposes of constructing a grammar requiring a minimum amount of resources (Col. 7, lines 21-29, lines 35-39).

However, Brown fails to make use of the RTN network as a flow control in dialog management, and does not present any suggestion nor render obvious the usage of RTN networks for the purposes of control in a dialog management system.

Therefore, these reasons, **claim 1** is allowed over the prior art.

Regarding **claims 2-14** and **16-21**, each further limits allowed **claim 1**. Therefore, they are allowed for at least the same reasons that **claim 1** is allowed as applied above.

Regarding **claim 22**, Chapados again discloses the most relevant prior art found. Chapados discloses a spoken dialog service supporting context shifts that is built according to a method comprising:

- selecting a top level dialog flow controller [discourse manager] that is a finite state model (Col. 2, lines 20-24);
- selecting available reusable subdialogs for being invoked by the top level flow controller, the reusable subdialogs being isolated from application dependencies (Col. 3, lines 19-22; Col. 8, lines 35-39, lines 42-44; Col. 9, lines 15-21); and
- wherein when a user of the system changes the context of the spoken dialog while in a reusable subdialog, a context

shift returns a context shift indication and sets a state in the top level flow controller (Col. 9, lines 39-44).

It is noted by the examiner that “deploying the spoken dialog service” is an inherent part of the generation process of a spoken dialog service as applied above in the Response to the Amendments.

Furthermore, the examiner contends that it would be have been obvious for one of ordinary skill in the art at the time the invention was made to test any spoken dialog service before use as part of the generation process. This is because for the creation of any novel invention, testing is a known practice in ensuring repeatable and successful results in utilization.

However, similar to **claim 1** above, Chapados does not further disclose that the top level flow controller is **also a recursive transition network (RTN) flow controller.**

The most appropriately applied prior art regarding the use of RTN networks in dialog management systems that was found during examination was Brown (US Patent 5,699,456), cited in a previous Office Action, which describes the use of RTN networks for the purposes of constructing a grammar requiring a minimum amount of resources (Col. 7, lines 21-29, lines 35-39).

However, Brown fails to make use of the RTN network as a flow control in dialog management, and does not present any suggestion nor render obvious the usage of RTN networks for the purposes of control in a dialog management system.

Therefore, these reasons, **claim 22** is allowed over the prior art.

Regarding **claims 23-25**, each of these claims further limits allowed **claim 22**. Therefore, they are allowed for at least the same reasons that **claim 22** is allowed as applied above.

Regarding **claim 26**, Chapados again discloses the most relevant prior art found. Chapados discloses a dialog system having a dialog manager generated according to:

- selecting a top level flow controller based on application type [discourse manager], the top level flow controller being a finite state model (Col. 2, lines 20-24) and
- having application-dependent features such that a reusable subdialog can operate independent of the decision model of the top level flow controller and the decision models of other reusable subdialogs [permanent transition] (Col. 3, lines 19-22);
- determining at least one application part below the top level flow controller, each application part requiring a different flow controller (Co. 2, lines 39-45);
- selecting available reusable subdialogs for each application part (Col. 3, lines 19-29; Col. 8, lines 35-39, lines 42-44; Col. 9, lines 15-21)

It is noted by the examiner that “deploying the spoken dialog service” is an inherent part of the generation process of a spoken dialog service as applied above in the Response to the Amendments.

Furthermore, the examiner contends that it would be have been obvious for one of ordinary skill in the art at the time the invention was made to test any spoken dialog service before use as part of the generation process. This is because for the creation of any novel invention, testing is a known practice in ensuring repeatable and successful results in utilization.

However, similar to **claim 1** above, Chapados does not further disclose that the top level flow controller is **also a** recursive transition network (RTN) flow controller.

The most appropriately applied prior art regarding the use of RTN networks in dialog management systems that was found during examination was Brown (US Patent 5,699,456), cited in a previous Office Action, which describes the use of RTN networks for the purposes of constructing a grammar requiring a minimum amount of resources (Col. 7, lines 21-29, lines 35-39).

However, Brown fails to make use of the RTN network as a flow control in dialog management, and does not present any suggestion nor render obvious the usage of RTN networks for the purposes of control in a dialog management system.

Therefore, these reasons, **claim 26** is allowed over the prior art.

Regarding **claims 27-26**, each of these claims further limits allowed **claim 26**. Therefore, they are allowed for at least the same reasons as **claim 26** as applied above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID KOVACEK whose telephone number is (571)270-3135. The examiner can normally be reached on M-F 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2626

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DMK, 05/06/2008

/David R Hudspeth/
Supervisory Patent Examiner, Art Unit 2626